## What is claimed is:

1. A compound of formula (I) or pharmaceutically acceptable salts thereof:

wherein

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 $R^{F1}$  and  $R^{F2}$  are independently electron-withdrawing groups;

Z is selected from O= and S=;

 $R^1$  is selected from  $C_{1-10}$  alkyl;  $C_{1-10}$  alkyl;  $C_{1-10}$  alkyl;  $C_{2-10}$  alkenyl;  $C_{2-10}$  alkenyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro;  $C_{2-10}$  alkynyl;  $C_{2-10}$  alkynyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro;  $R^3R^4N$ - $C_{1-6}$  alkyl;  $R^3R^4NC(=O)$ - $C_{1-6}$  alkyl;  $R^3O$ - $C_{1-6}$  alkyl;  $R^3O$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3R^4NC(=O)N(R^5)$ - $C_{1-6}$  alkyl;  $R^3R^4NSO_2N(R^5)$ - $C_{1-6}$  alkyl; aryl- $C_{1-6}$  alkyl; aryl- $C_{1-6}$  alkyl; heterocyclyl- $C_{1-6}$  alkyl; substituted aryl- $C_{1-6}$  alkyl; substituted heterocyclyl- $C_{1-6}$  alkyl;

substituted heterocyclyl-C(=O)- $C_{1-6}$ alkyl; and  $C_{1-10}$ hydrocarbylamino;  $R^2$  is selected from  $C_{1-6}$ alkyl, substituted  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl, substituted  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, substituted  $C_{2-6}$ alkynyl,  $C_{3-6}$ cycloalkyl, substituted  $C_{3-6}$ cycloalkyl, aryl, substituted aryl, and  $C_{5-6}$ heteroaryl, and substituted

20 C<sub>5-6</sub>heteroaryl;

 $R^3$ ,  $R^4$  and  $R^5$  are independently selected from -H,  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, and a divalent  $C_{1-6}$ group that together with another divalent  $C_{1-6}$ group forms a portion of a ring;

X is a C<sub>1-10</sub> divalent group that separates groups connected thereto by one or 25 two atoms;

Ar is a  $C_{4-12}$  divalent aromatic group; and Y is selected from -CH= and -N=.

2. The compound as claimed in claim 1, wherein

 $R^{F1}$  and  $R^{F2}$  are independently  $C_{1-6}$  alkyl substituted by one or more groups selected from -F, -Cl, -Br, -NO<sub>2</sub>, -CN, -OH, -CHO, -C(=O)-R' and -OR', wherein R' is a  $C_{1-3}$  alkyl.

- The compound as claimed in claim 1, wherein

  R<sup>F1</sup> and R<sup>F2</sup> are independently selected from -CF<sub>3</sub>, -CH<sub>2</sub>CF<sub>3</sub>, -CH<sub>2</sub>CHF<sub>2</sub>,

  -CHFCF<sub>3</sub>, -CHFCHF<sub>2</sub>, -CHFCH<sub>2</sub>F, -CF<sub>2</sub>CF<sub>3</sub>, -CF<sub>2</sub>CH<sub>3</sub>, -CF<sub>2</sub>CH<sub>2</sub>F, -CF<sub>2</sub>CHF<sub>2</sub>, -CF<sub>3</sub>,

  -CH<sub>2</sub>CCl<sub>3</sub>, -CH<sub>2</sub>CHCl<sub>2</sub>, -CH<sub>2</sub>CBr<sub>3</sub>, -CH<sub>2</sub>CHBr<sub>2</sub>, -CH<sub>2</sub>NO<sub>2</sub>, -CH<sub>2</sub>CH<sub>2</sub>NO<sub>2</sub>, -CH<sub>2</sub>CN,

  -CH<sub>2</sub>CH<sub>2</sub>CN, and -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>.
- 4. The compound as claimed in claim 1, wherein  $R^{F1}$  and  $R^{F2}$  are independently  $C_{1.6}$  groups that comprise at least 30% fluorine by weight and Z is O=.

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C<sub>1-10</sub>hydrocarbylamino;

- 5. The compound as claimed in claim 1, wherein R<sup>1</sup> is selected from C<sub>1-10</sub> alkyl;

  C<sub>1-10</sub>alkyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro;

  C<sub>2-10</sub>alkenyl; C<sub>2-10</sub>alkenyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro; C<sub>2-10</sub>alkynyl; C<sub>2-10</sub>alkynyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro; R<sup>3</sup>R<sup>4</sup>N-C<sub>1-6</sub>alkyl; R<sup>3</sup>R<sup>4</sup>NC(=O)-C<sub>1-6</sub>alkyl; R<sup>3</sup>O-C<sub>1-6</sub> alkyl;

  R<sup>3</sup>OC(=O)-C<sub>1-6</sub>alkyl; R<sup>3</sup>C(=O)-C<sub>1-6</sub>alkyl; R<sup>3</sup>C(=O)NR<sup>3</sup>-C<sub>1-6</sub>alkyl; R<sup>3</sup>R<sup>4</sup>NSO<sub>2</sub>
  C<sub>1-6</sub>alkyl; R<sup>3</sup>CSO<sub>2</sub>N(R<sup>4</sup>)-C<sub>1-6</sub>alkyl; R<sup>3</sup>R<sup>4</sup>NC(=O)N(R<sup>5</sup>)-C<sub>1-6</sub>alkyl; R<sup>3</sup>R<sup>4</sup>NSO<sub>2</sub>N(R<sup>5</sup>)-C<sub>1-6</sub>alkyl; aryl-C<sub>1-6</sub>alkyl; aryl-C(=O)-C<sub>1-6</sub>alkyl; heterocyclyl-C<sub>1-6</sub>alkyl; heterocyclyl-C<sub>1-6</sub>alkyl; substituted aryl-C<sub>1-6</sub>alkyl; substituted aryl-C(=O)-C<sub>1-6</sub>alkyl;
- R<sup>2</sup> is selected from C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyl substituted by at least one fluorine, C<sub>2-6</sub>alkenyl, C<sub>2-6</sub>alkenyl substituted by at least one fluorine, C<sub>2-6</sub>alkynyl, C<sub>2-6</sub>alkynyl substituted by at least one fluorine, C<sub>3-6</sub>cycloalkyl, substituted C<sub>3-6</sub>cycloalkyl, aryl, substituted aryl, and C<sub>5-6</sub>heteroaryl, and substituted C<sub>5-6</sub>heteroaryl;

substituted heterocyclyl-C<sub>1-6</sub>alkyl; substituted heterocyclyl-C(=O)-C<sub>1-6</sub>alkyl; and

R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are independently selected from -H, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl,

C<sub>2-6</sub>alkynyl, and a divalent C<sub>1-6</sub>group that together with another divalent C<sub>1-6</sub>group forms a portion of a ring; and

X is selected from  $-NR^6$ -, -C(=O)-,  $-CH_2$ - $CH_2$ -, -CH=CH-, -O-,  $-C(R^6)(R^7)$ -, and  $-S(O)_n$ -, wherein n is 0, 1 or 2, wherein  $R^6$  and  $R^7$  are independently  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl,  $C_{1-6}$ alkoxy, -OH, or -H.

5 6. A compound according to Claim 1, wherein:

R<sup>1</sup> is selected from C<sub>1-8</sub>alkyl; C<sub>2-8</sub>alkenyl; C<sub>2-8</sub> alkynyl; aryl-C<sub>1-6</sub>alkyl; aryl-C<sub>1-6</sub>alkyl with the aryl substituted by at least one group selected from C<sub>1-6</sub>alkyl, acetoxymethyl, nitro and halogen; R<sup>8</sup>R<sup>9</sup>NC<sub>1-6</sub>alkyl; R<sup>8</sup>OC<sub>1-6</sub>alkyl; cycloalkyl-C<sub>1-6</sub>alkyl; heterocycloalkyl-C<sub>1-6</sub>alkyl; heterocycloalkyl-C<sub>1-6</sub>alkyl with the heterocycloalkyl thereof substituted by at least one group selected from C<sub>1-8</sub>alkyl, acetoxymethyl, nitro and halogen; C<sub>1-6</sub>alkylaryl; C<sub>1-6</sub>alkyl-C(=O)-; C<sub>6-8</sub>aryl-C(=O)-;

 $C_{4-8}$ heteroaryl-C(=O)-; heteroaryl- $C_{1-6}$ alkyl; heteroaryl- $C_{1-6}$ alkyl with the heteroaryl thereof substituted by at least one group selected from  $C_{1-6}$ alkyl, acetoxymethyl, nitro

and halogen; and R<sup>N</sup>C<sub>1-6</sub>alkyl;

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 $R^2$  is selected from -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -CH(CH<sub>3</sub>)<sub>2</sub>, C<sub>3-6</sub>cycloalkyl, -CH<sub>2</sub>CF<sub>3</sub>, -CHF<sub>2</sub>, -CF<sub>3</sub> and aryl;

 $R^N$  is an oxidized pyridyl wherein the nitrogen atom on the pyridyl ring is in an oxidized state ( $N^+$ -O $^-$ );

Ar is selected from an arylene; an heteroarylene; an arylene substituted by at least one group selected from  $C_{1-6}$ alkyl, halogen, trifluoromethyl, cyano, nitro, hydroxy and  $C_{1-6}$ alkoxy; and an heteroarylene substituted by at least one group selected from  $C_{1-6}$ alkyl, halogen, trifluoromethyl, cyano, nitro, hydroxy and  $C_{1-6}$ alkoxy; and

 $R^8$  and  $R^9$  are independently selected from -H and  $C_{1-6}$ alkyl.

7. The compound according to claim 6,

wherein the arylene is *para*-arylene; and the heteroarylene is selected from six-membered ring *para*-heteroarylene and five-membered ring *meta*-heteroarylene.

8. A compound according to Claim 1, wherein:

R¹ is selected from ethyl, propyl, allyl, isopentyl, benzyl, dimethylaminoethyl, 4-pyridylmethyl, 2-pyridylmethyl, 1-pyrrolylethyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, 2-pyrrolidylmethyl, 3-pyrrolidylmethyl, N-methyl-3-pyrrolidylmethyl, 2-piperidylmethyl, 3-piperidylmethyl, 4-piperidylmethyl, N-methyl-2-piperidylmethyl, N-methyl-3-piperidylmethyl, N-methyl-4-piperidylmethyl, 3-thienylmethyl, 2-tetrahydrofuranylmethyl, 3-tetrahydrofuranylmethyl, 2-tetrahydropyranylmethyl, 3-tetrahydropyranylmethyl, (2-nitrothiophene-5-yl)methyl, (1-methyl-1H-imidazole-2-yl)methyl, (5-(acetoxymethyl)-2-

furanyl)methyl, (2,3-dihydro-1H-isoindole-1-yl)methyl, and 5-(2-methylthiazolyl);

R<sup>2</sup> is selected from -CH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>CF<sub>3</sub>, CF<sub>3</sub>, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl and phenyl;

$$R^{F1}$$
 and  $R^{F2}$  are  $-CH_2CF_3$  and Z is  $O=$ ;

Ar is selected from a *para*-arylene; a *para*-arylene substituted with C<sub>1-6</sub>alkyl, halogen, trifluoromethyl, cyano, nitro, hydroxy and C<sub>1-6</sub>alkoxy; a six-membered ring *para*-heteroarylene; and a six-membered ring *para*-heteroarylene substituted with a group selected from C<sub>1-6</sub>alkyl, halogen, trifluoromethyl, cyano, nitro, hydroxy and C<sub>1-6</sub>alkoxy.

20 9. A compound according to Claim 1, wherein:

$$R^{F1}$$
 and  $R^{F2}$  are -CH<sub>2</sub>CF<sub>3</sub>, and Z is O=;  
 $R^2$  is -CH<sub>2</sub>CH<sub>3</sub>;

Ar is selected from para-phenylene and para-pyridylene; and

25 X is selected from -CH $_2$ - and -CH(CH $_3$ )-.

10. A compound according to claim 1, wherein said compound is selected from:

2-[(4-Ethoxyphenyl)methyl]-1-(3-methylbutyl)-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-30 benzimidazole-5-carboxamide;

1-(Cyclopropylmethyl)-2-[(4-ethoxyphenyl)methyl]-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;

1-(Cyclohexylmethyl)-2-[(4-ethoxyphenyl)methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;

- 2-[(4-Ethoxyphenyl)methyl]-1-(2-furanylmethyl)-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 5 2-[(4-Ethoxyphenyl)methyl]-1-[(2S)-2-pyrrolidinylmethyl]-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;
  - 2-[(4-Ethoxyphenyl)methyl]-1-[(2R)-2-pyrrolidinylmethyl]-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;
- 2-[(4-ethoxyphenyl)methyl]-1-(4-pyridinylmethyl)-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-[1-(4-Ethoxyphenyl)ethyl]-1-(4-pyridinylmethyl)-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-[(4-Ethoxyphenyl)methyl]-1-[(tetrahydro-2*H*-pyran-4-yl)methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 2-[(4-Ethoxyphenyl)methyl]-1-[[(2*R*)-tetrahydro-2-furanyl]methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-[(4-Ethoxyphenyl)methyl]-1-[[(2S)-tetrahydro-2-furanyl]methyl]-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;
- 2-[(4-Ethoxyphenyl)methyl]-1-[(tetrahydro-2*H*-pyran-2-yl)methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-[(4-Ethoxyphenyl)methyl]-1-[(2R)-2-piperidinylmethyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-[(5-Ethoxy-2-pyridyl)methyl]-1-[(tetrahydro-2*H*-pyran-4-yl)methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 25 2-[(5-Ethoxy-2-pyridinyl)methyl]-1-(3-methylbutyl)-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;

2-[(4-Ethoxyphenyl)methyl]-1-[[(2R)-1-methyl-2-pyrrolidinyl]methyl]-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;

- 2-[(4-Ethoxyphenyl)methyl]-1-[[(2R)-1-methyl-2-piperidinyl]methyl]-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;
- 5 2-[(5-Ethoxy-2-pyridinyl)methyl]-1-[(2*R*)-2-pyrrolidinylmethyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-[1-(4-Ethoxyphenyl)ethyl]-1-[(2R)-2-pyrrolidinylmethyl]-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;
- 2-[(5-Ethoxy-2-pyridinyl)methyl]-1-[[(2R)-1-methyl-2-piperidinyl]methyl]-N,Nbis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide:
  - $2-[(5-\text{Ethoxy-}2-\text{pyridinyl})\text{methyl}]-1-[[(2R)-1-\text{methyl-}2-\text{pyrrolidinyl}]\text{methyl}]-N,N-bis(2,2,2-\text{trifluoroethyl})-1H-benzimidazole-5-carboxamide;}$
  - 1-(Cyclobutylmethyl)-2-(4-ethoxybenzyl)-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 15 1-(Cyclobutylmethyl)-2-[(5-ethoxypyridin-2-yl)methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 1-(Cyclopentylmethyl)-2-[(5-ethoxypyridin-2-yl)methyl]-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 2-(4-Ethoxybenzyl)-1-[(2S)-piperidin-2-ylmethyl]-N,N-bis(2,2,2-trifluoroethyl)-1Hbenzimidazole-5-carboxamide;
  - 2-[(5-Ethoxypyridin-2-yl)methyl]-1-(3-furylmethyl)-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;
  - 2-[(5-Ethoxypyridin-2-yl)methyl]-1-(3-thienylmethyl)-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 25 1-(Cyclohexylmethyl)-2-[(5-ethoxypyridin-2-yl)methyl]-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;

1-(Cyclohexylmethyl)-2-[(5-isopropoxypyridin-2-yl)methyl]-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;

- 2-(4-Ethoxybenzyl)-1-[(4-methylmorpholin-3-yl)methyl]-*N*,*N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
- 5 2-[(5-Ethoxypyridin-2-yl)methyl]-1-[(4-methylmorpholin-3-yl)methyl]-*N,N*-bis(2,2,2-trifluoroethyl)-1*H*-benzimidazole-5-carboxamide;
  - 2-(4-Ethoxybenzyl)-1- $\{[(2S)-1-methylpiperidin-2-yl]methyl\}-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;$
- 2-(4-Isopropoxybenzyl)-1-{[(2R)-1-methylpiperidin-2-yl]methyl}-N,N-bis(2,2,2-trifluoroethyl)-1H-benzimidazole-5-carboxamide;

and pharmaceutically acceptable salts thereof.

- 11. A compound according to any one of above claims for use as a medicament.
- 12. The use of a compound according to any one of claims 1-10 in the manufacture of a medicament for the therapy of pain.
  - 13. The use of a compound according to any one of claims 1-10 in the manufacture of a medicament for the treatment of cancers.
- 20 14. The use of a compound according to any one of claims 1-10 in the manufacture of a medicament for the treatment of multiple sclerosis, Parkinson's disease, Huntington's chorea, transplant rejection or Alzheimer's disease.
- 15. A pharmaceutical composition comprising a compound according to any one
   of claims 1-10 and a pharmaceutically acceptable carrier.
  - 16. A method for the therapy of pain in a warm-blooded animal, comprising the step of administering to said animal in need of such therapy a therapeutically effective amount of a compound according to any one of claims 1-10.

17. A method of producing a compound comprising the step of reacting a compound represented by formula (II) with R<sup>2</sup>OArXCOA:

$$R_{F2}^{F1} N \xrightarrow{Z} NH_2$$
 $NH_2$ 
 $NH_2$ 
 $R_1^{F1}$ 
 $NH_2$ 

wherein

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 $R^{\text{F1}}$  and  $R^{\text{F2}}$  are independently electron-withdrawing groups;

Z is selected from O= and S=;

 $R^1$  is selected from  $C_{1-10}$  alkyl;  $C_{1-10}$  alkyl;  $C_{1-10}$  alkyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro;  $C_{2-10}$  alkenyl;  $C_{2-10}$  alkynyl;  $C_{2-10}$  alkynyl;  $C_{2-10}$  alkynyl substituted by at least one of halogen, cyano, acetoxymethyl and nitro;  $R^3R^4N$ - $C_{1-6}$  alkyl;  $R^3R^4NC(=O)$ - $C_{1-6}$  alkyl;  $R^3O$ - $C_{1-6}$  alkyl;  $R^3O$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3R^4NSO_2$ - $C_{1-6}$  alkyl;  $R^3C(=O)$ - $C_{1-6}$  alkyl;  $R^3R^4NSO_2$ - $C_{1-6}$  alkyl;  $R^3C_{1-6}$  alkyl; aryl- $C_{1-6}$  alkyl; aryl- $C_{1-6}$  alkyl; heterocyclyl- $C_{1-6}$  alkyl; substituted aryl- $C_{1-6}$  alkyl; substituted heterocyclyl- $C_{1-6}$  alkyl; substituted heterocyclyl- $C_{1-6}$  alkyl; and  $C_{1-10}$  hydrocarbylamino;

 $R^2$  is selected from  $C_{1-6}$ alkyl, substituted  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl, substituted  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, substituted  $C_{2-6}$ alkynyl,  $C_{3-6}$ cycloalkyl, substituted  $C_{3-6}$ cycloalkyl, aryl, substituted aryl, and  $C_{5-6}$ heteroaryl, and substituted  $C_{5-6}$ heteroaryl;

 $m R^3$ ,  $m R^4$  and  $m R^5$  are independently selected from -H,  $m C_{1-6}$ alkyl,  $m C_{2-6}$ alkenyl,  $m C_{2-6}$ alkynyl, and a divalent  $m C_{1-6}$ group that together with another divalent  $m C_{1-6}$ group forms a portion of a ring;

X is a  $C_{1-10}$  divalent group that separates groups connected thereto by one or two atoms;

A is selected from -OH, -Cl, -Br, and -I; Ar is a C<sub>4-12</sub> divalent aromatic group; and Y is selected from -CH= and -N=.

18. A method of producing a compound comprising the step of reacting a compound represented by formula (III) with formaldehyde:

wherein

5 r and s are selected from 0, 1 and 2;

 $R^{10}$  is selected from  $C_{1-6}$ alkylene, -O-, and -NR<sup>11</sup>-, wherein  $R^{11}$  is a  $C_{1-6}$ alkyl;  $R^{F1}$  and  $R^{F2}$  are independently electron-withdrawing groups;

X is a  $C_{1-10}$  divalent group that separates groups connected thereto by one or two atoms;

Ar is a  $C_{4-12}$  divalent aromatic group;

 $R^2$  is selected from  $C_{1\text{-}6}$ alkyl, substituted  $C_{1\text{-}6}$ alkyl,  $C_{2\text{-}6}$ alkenyl, substituted  $C_{2\text{-}6}$ alkenyl,  $C_{2\text{-}6}$ alkynyl, substituted  $C_{2\text{-}6}$ alkynyl,  $C_{3\text{-}6}$ cycloalkyl, substituted  $C_{3\text{-}6}$ cycloalkyl, aryl, substituted aryl, and  $C_{5\text{-}6}$ heteroaryl, and substituted  $C_{5\text{-}6}$ heteroaryl; and

15 Y is selected from -CH= and -N=.